UNITED STATES PATENT AND TRADEMARK OFFICE

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09/071,021	05/01/1998	RICHARD FRANK BRUNO	20-21-26-22-	5065

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ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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	Application No.	Applicant(s)
Office Action Summary	09/071,021	BRUNO ET AL.
	Examiner	Art Unit
	Saba Tsegaye	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 June 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-5,7-15 and 17-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1, 3-5, 7-15 and 17-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This Office Action is in response to the amendment filed 06/25/07. Claims 1, 3-5, 7-11,

13-15 and 17-27 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 103

2.   Claims 1, 2, 4, 5, 7-12, 14, 15 and 17-26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sonesh et al. (US 6,614,783) in view of The Admitted Prior Art (fig. 1).

With regard to claims 1, 11, 14, 21, and 22, Sonesh discloses a method and system for

connecting a call to one of a plurality of agents (120) in a call center (ACD 110), wherein the

method comprises receiving a query from a plurality of telecommunications networks (figs. 1

and 2; 111, 112), regarding whether at least one agent is available, among the plurality of agents

(120; column 2, lines 45-53), each telecommunications network being a disparate

telecommunications network with respect to other telecommunications networks of the plurality

of telecommunications networks the agent (120, 121 (within each telecommunications network))

being coupled within each disparate telecommunications network (113, 112; column 7, lines 1-

20; see figs, 1 and 2); determining which available agent is to be connected based on the

availability of the agent as well as a most idle agent criteria (column 5, lines 49-51; column 7,

lines 17-51); responding to query with a connection information of a determined agent;

connecting the call to the determined agent (column 5, lines 51-55); and updating an availability

entry for the plurality of agents to indicate that an agent is unavailable for receiving another call

when the call is connected to the agent and to indicate that the agent is available for receiving

another call when the call connected to the agent terminates availability entry being updated with respect to each of the disparate telecommunication network (column 11, lines 6-10). However, Sonesh does not expressly disclose that the determined agent within the one telecommunications network the one telecommunications network being a circuit-switched network.

The Admitted Prior Art (fig. 1, page 2) discloses a plurality of disparate telecommunications networks that are connected to agent 5 (a plurality agents can be located at a call processing center 6). The agent 5 can receive calls or sessions from ATM 7, from an IP 11 and from a circuit switched telecommunications network 13.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a system that determined agent within a circuit-switched network, such as that suggested by The Admitted Prior Art, to the system of Sonesh in order to allow greater flexibility to use any type of system in which an agent or other representative is able to communicate with a customer or other individual or system.

With regard to claim 4, Sonesh discloses that the step of determining an availability includes determining the availability of each agent and selecting an agent, wherein the step of responding to the query includes determining routing instructions for routing the call from the telecommunications network through which the query was received to the selected agent (column 5, lines 48-55; column 7, lines 25-29).

Regarding claims 7 and 17, Sonesh discloses the method wherein at least one of the disparate telecommunications network is an NCP architecture network (see fig. 1).

Regarding claims 8 and 18, Sonesh discloses the method wherein the NCP architecture network is a circuit-switched telecommunications network (111, see fig. 1).

With regard to claims 9, 10, 19 and 20, Sonesh discloses the method wherein the NCP architecture network is an ATM network (column 5, lines 19-37).

With regard to claims 23-26, Sonesh disclose the method wherein the connection information is a routing telephone number (column 7, lines 63-65).

With regard claim 5 and 15, Sonesh discloses that routing algorithms, such as which caller will be routed to which agent or agents groups based on the *caller identify, agent skills, call priority, service and/or area interest and other relevant criteria*, are stored in and decided by the MMACD server. Alternatively the MMACD server may query external databases for *routing information*. If an agent is not available, the call is placed in and appropriate wait queue (the caller is notified of the current average queue wait time), based on caller priority, type of service and/or area selected, or access priority. Sonesh does not expressly disclose that the routing is based on one of a lowest cost criterion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sonesh in view of The Admitted Prior Art so that the routing is based on a lowest cost criterion that has been common practice in the art as a means for selecting the most cost effective route for communication. Doing so would increase flexibility and provide more efficient communication system.

Regarding claim 27, Sonesh discloses a system comprising:

I) a first telecommunications network (113);

II) a second telecommunications network disparate from the first telecommunications

(112)

III) a plurality of agent (121, 120), each agent being connected to receive calls

transmitted only through network elements of the first telecommunications network (agent 120

receives call from telephone 104, 102 and 101), and each agent being connected to receive calls

transmitted only through network elements of the second telecommunications network (agent

121 receives call from users 105);

IV) an agent availability network control point (ACD) connected to the first and

second telecommunications networks (113. 112, 111) and each of the plurality of

agents (121, 120), the AA NCP including:

(a)   an input/output module connected to the first and second

telecommunications networks, and connected to the plurality of agents (it inherent

to use input/output module to connect the first and the second networks as shown in fig. 1);

(b) an agent update module for determining an availability of each of the

plurality of agents based on an availability status in the first telecommunication

network and on an availability status in the second telecommunication network (column 5, lines

38-55);

(c)   an agent inventory module containing information about agents including

at least an agent skill level criterion and a most idle agent criterion (column 5, lines

38-55);

    (d) a routing options module containing information relating to routing

strategies within the first and second networks (column 5, lines 38-55; column 7,

lines 17-51); and

    (e)   a statistical program module for analyzing the routing strategies (column 5,

lines 48-55);

    the AA NCP further being configured to receive a query from a requesting

network of the first and second networks through the input/output module, the query regarding

whether at least one agent, among the plurality of agents, is available to connect to a user in the

requesting network; to select an agent based on information from the agent update module and

the agent inventory module; to determine routing instructions using the routing options module

and the statistical program module, and to transmit the routing instructions to the requesting

network to complete a call within the requesting network from the user to the selected agent

(column 5, lines 38-55; column 7, lines 17-51).

    Sonesh does not disclose **a plurality of agents in a call center.**
The Admitted Prior Art (fig. 1, page 2) discloses a plurality of disparate telecommunications

networks that are connected **to agent 5 located at a call processing center 6** (a plurality agents

can be located at a call processing center 6).

    It would have been obvious to one of ordinary skill in the art at the time the invention

was made to use the teachings from The Admitted Prior art of locating a plurality agents at ACD

disclosed by Sonesh. One of ordinary skill in the art would have been motivated to do this

because locating a plurality agent at ACD allows an agent to establish connections with a

plurality of disparate telecommunications networks, as shown in fig. 1 of the Admitted Prior Art, and such arrangement would allow caller to access the same agents from multiple network types.

3.   Claims 3 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonesh et al. in view of The Admitted Prior Art as applied to claims 1 and 11 above, and further in view of Petrunka (US 5,987,116).

Sonesh in view of The Admitted Prior Art discloses all the claim limitations as stated above, except for query uses SS7 singling for communicating with the telecommunications network from which the query was received. However, as known in the art, all phone systems need some form of signaling mechanism to set up and tear down calls. SS7 signaling is carried as out-band signaling which uses a separate data network.

Petrunka teaches that HLS 1110 includes a call identifier with a voice call sent through the PSTN using a standard CCS7 trunk to the local ACD switch (column 5, lines 56-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made modify the invention of Sonesh in view of The Admitted Prior Art so that SS7 signaling is used, as thought by Petrunka, because SS7 signaling has been an effective, well-known method for allowing signaling to take place along a separate network from the information transfer, which would allow communication to proceed without interference between information and signaling.

Response to Arguments

4.   Applicant's arguments filed 06/25/07 have been fully considered but they are not

persuasive. Applicant argues (Remarks, page 11) *that in combination made by the Examiner*

agent availability cannot be determined across disparate networks, because the Examiner's

combination utilizes an   ACD for call distribution. Examiner respectfully disagrees with

Applicant assertion. Sonesh discloses a multimedia telecommunication automatic call

distribution center, which allows access to the call center via a plurality of access means,

including **telephone** and **data networks**. As shown in fig. 1, multimedia automatic call

distribution system (MMACD) is accessed through **PSTN** (111) and plurality of **data networks**

(112, 113). Plurality of callers (100 and 104 (via PSTN), 105 (via data network)) can access the

MMACD and are routed to a plurality of agents (120 and 121). If no agent is available the

MMACD server places a caller on hold. The MMACD server checks whether agent becomes

available, and **queue** information is periodically **updated.** Once it is determined that an agent is

available the caller is connected to that agent. This shows that the MMACD server has the ability

for tracking agents and updating agent. The Admitted Prior Art teaches a plurality of agents in a

call center that is connected to disparate telecommunications networks.

On page 12, Applicant argues that *as noted in the Present Specification, there is no way*

to share information between the disparate networks in Fig1 of The Admitted Prior Art. It is

respectfully submitted that the rejection is based on the combined teaching of the Sonesh patent

and The Admitted Prior Art, and that the Sonesh patent, as pointed out above does teach this

feature.

On pages 12-12, Applicant argues that *ACDs do not have the capability to receive information relating to disparate network connections for intelligently routing a call or session to and available agent because a n conventional ACD operates only within a particular environment in which the ACD is connected.* Examiner respectfully disagrees with Applicant assertion. Sonesh clearly shows that callers 100, 104 and 105 can the MMACD server 110 via PSTN and data network. The MMACS server provides appropriate administration tools to program routing algorithms such as which caller (caller though PSTN or caller though data network) will be routed to which agent or agent group, based on caller identity, and/or agent skills and/or call priority (column 5, lines 38-55). The Admitted Prior Art assists that a plurality of agents in a call center that is connected to disparate telecommunications networks.

On page 13, Applicant argues that *Sonesh does not teach an agent connected to a circuit switched network.* It is respectfully submitted that the rejection is based on the combined teaching of the Sonesh patent and The Admitted Prior Art, and The Admitted Prior Art, as pointed out above does teach this feature.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The

examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2616

8/13/07

WING CHAN
SUPERVISORY PATENT EXAMINER

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August 10, 2007